

ga montium lunarium distinguebantur, nec lata admodum nec profunda. Adhibita scala subtiliter divisa, æstimavi profunditatem unius vallis $\frac{1}{200}$ five partem ducentessimam diametri lunæ.

4. Ultimæ phasæ decreſcentes per tenues nubes viſæ fuerunt, neque tamen ultra undecim diſci ſolis uncias nobis luna occultavit.

5. Centri ſolis occaſus pro horizonte Vitembergenſi calculo tum fuerat repertus, $7^h. 39^m. 49^s$ adeoque refractione radiorum in nubibus horizonſis prope modum ſex minutis fuit retardatus.

IV. *An Abſtract of the Meteorological Diaries, communicated to the Royal Society; with Remarks upon them.* By W. Derham, D. D. Canon of Windſor, F. R. S. [PART II. Vide *Transact.* N° 429.]

PART III. *Containing Meteorological Obſervations made at*

Berlin	}	1726.
Sweden		

Lunden
Bettna
Upſale
Bygdea
Pithea

AN Abſtract of *Meteorological Obſervations* made in the Year 1726, at *Berlin*, by the Society there, and communicated by *Joh. Theod. Fablonski*; and in *Sweden*, at *Lunden*, by *Conrad Quenſel*, Mathematick Profeſſor in the *Caroline Academy*;

Academy; and at *Bettna* in *Sudermanland*, by *Andr. Geringius*, Pastor and Provost of the Place; and at *Upsalæ*, by *Eric Burman*, Astron. Professor in the *Gustavian Academy*; and at *Bygdea*, in *Westro-Bothnia*, by the late *Jacobus Burman*, Pastor of the Place; and lastly, at *Pitheä*, in the same Province, by *Olave Burman*, and *Israel Stecksenius*, Students.

These Observations have, with so great Judgment, Diligence and Care, been made, some twice, and some thrice every Day, that I wish they could be published as they are; but by reason they are too numerous and bulky to be capable of that, therefore I have contracted them as well as I could, to make them useful to the Society; and that not without a great deal of Trouble, by Reason of the Difficulty to give a tolerable brief Account of so great a Variety and Number of Observations, as are those of the Winds, and their Strength, the Weather, the Barometer, Thermometer, &c. of so many Places, and so many times every Day in the Year.

The most useful of the *Barometrical* Observations I have represented in the following Table; which shews, at an easy View, the highest, lowest, and mean Heights of the Quicksilver in every Month, at the several Places.

	JANUARY.				FEBRUARY.			
	Berlin	Lun.	Bett.	Upsa.	Berlin	Lun.	Bett.	Upsa.
High.	29.3	30.0 $\frac{1}{2}$	30.51	30.18	29.6	29.8 $\frac{1}{4}$	30.40	30. 2
Mean	28 7 $\frac{1}{2}$	29.3 $\frac{1}{8}$	29.92	29.58	28.6 $\frac{1}{4}$	29 1 $\frac{1}{2}$	29.74	29.53
Low.	28.0 $\frac{1}{4}$	28.5 $\frac{3}{4}$	29.26	28.98	27.6 $\frac{1}{4}$	28.4 $\frac{1}{4}$	29. 8	28.86

MARCH.

MARCH.

APRIL.

	Berlin	Lun.	Bettna	Upfa.	Pithea	Berlin	Lun.	Bettna	Upfa.	Pithea
High.	29. 0 $\frac{1}{2}$	30. 0 $\frac{1}{2}$	30. 50	30. 24	30. 11	28. 10	29. 9 $\frac{1}{2}$	30. 48	30. 17	29. 98
Mean	28. 5	29. 4 $\frac{1}{2}$	29. 79	29. 28	29. 35	28. 5	29. 5 $\frac{1}{2}$	29. 86 $\frac{1}{2}$	29. 66	29. 27 $\frac{1}{2}$
Low.	27. 10 $\frac{1}{2}$	28. 8 $\frac{1}{2}$	29. 8	28. 32	28. 50	28. 0 $\frac{1}{2}$	29. 2 $\frac{1}{2}$	29. 25	29. 15	28. 57

MAY.

JUNE.

	Berlin	Lun.	Bettna	Upfa.	Pithea	Berlin	Lun.	Bettna	Upfa.	Pithea
High.	28. 9 $\frac{1}{2}$	30. 0 $\frac{1}{2}$	30. 40	30. 16	30. 11	28. 7 $\frac{1}{2}$	29. 9 $\frac{1}{2}$	30. 20	30. 00	29. 98
Mean	28. 4 $\frac{1}{2}$	29. 7 $\frac{1}{2}$	30. 77 $\frac{1}{2}$	29. 84	29. 74 $\frac{1}{2}$	27. 9 $\frac{1}{2}$	29. 4 $\frac{1}{2}$	29. 67 $\frac{1}{2}$	29. 62 $\frac{1}{2}$	29. 56 $\frac{1}{2}$
Low.	28. 0 $\frac{1}{2}$	29. 4 $\frac{1}{2}$	29. 35	29. 52	29. 48	27. 0 $\frac{1}{2}$	28. 9 $\frac{1}{2}$	29. 15	29. 25	29. 15

JULY.

AUGUST.

	Berlin	Lun.	Bettna	Upfa.	Pithea	Berlin	Lun.	Bettna	Upfa.	Pithea
High.	28. 5 $\frac{1}{2}$	29. 6	30. 5	29. 88	29. 56	28. 8	29. 8 $\frac{1}{2}$	30. 30	29. 98	29. 86
Mean	28. 2 $\frac{1}{2}$	29. 2 $\frac{3}{4}$	29. 70	29. 54	29. 37 $\frac{1}{2}$	28. 3 $\frac{1}{2}$	29. 3 $\frac{1}{2}$	29. 65 $\frac{1}{2}$	29. 48	29. 28 $\frac{1}{2}$
Low.	28. 0 $\frac{1}{2}$	28. 9 $\frac{1}{2}$	29. 35	29. 20	29. 19	27. 11 $\frac{1}{2}$	28. 8 $\frac{1}{2}$	29. 1	28. 98	28. 71

SEPTEMBER.

OCTOBER.

	Berlin	Lun.	Bettna	Upfa.	Pithea	Berlin	Lun.	Bettna	Upfa.	Pithea
High.	28. 6	29. 7 $\frac{1}{2}$	30. 28	30. 00	29. 80	28. 10	30. 1 $\frac{1}{2}$	30. 55	30. 25	29. 90
Mean	28. 1	29. 1 $\frac{1}{2}$	29. 57 $\frac{1}{2}$	29. 29	29. 20	28. 3 $\frac{1}{2}$	29. 1 $\frac{1}{2}$	29. 57 $\frac{1}{2}$	29. 28 $\frac{1}{2}$	29. 05
Low.	27. 8	28. 5 $\frac{1}{2}$	28. 87	28. 58	28. 60	27. 9	28. 2 $\frac{1}{2}$	28. 60	28. 32	28. 20

NOVEMBER.

DECEMBER.

	Berlin	Lun.	Bettna	Upfa.	Pithea	Berlin	Lun.	Bettna	Upfa.	Pithea
High.	29. 1	30. 1 $\frac{1}{2}$	30. 80	30. 51	30. 19	29. 1 $\frac{1}{2}$	30. 0 $\frac{1}{2}$	30. 50	30. 7	29. 80
Mean	28. 7	29. 5 $\frac{1}{2}$	30. 00	29. 73	29. 24	28. 4 $\frac{1}{2}$	29. 5 $\frac{1}{2}$	29. 65	28. 83 $\frac{1}{2}$	29. 0 $\frac{1}{2}$
Low.	28. 1 $\frac{1}{2}$	28. 9	29. 20	28. 90	28. 29	27. 8 $\frac{1}{2}$	28. 4 $\frac{1}{2}$	28. 80	28. 60	28. 21

Although this Table may give a good View of the *Barometrical Ranges* at the several Places in every Month of the Year 1726, yet I think it necessary to acquaint the Society with the great Agreement between the Ascents and Descents of the \bar{x} , sometimes at the very same Time, and generally near it. If the \bar{x} was remarkably high or low, it was so in all, or most of the Places: If stationary for three or four, or more Days, it was the same in all. Only the Alteration would begin, or end, somewhat sooner, or later, perhaps, in one place than another; and when any Deviation was from this

this Rule, it was commonly most remarkable in the *Pitheæ* Observations.

The *Thermometrical* Observations I can give no Account of, by reason I understand not the Thermometers there made use of, not the Freezing, Temperature, or other Points. Only the *Upsale* Thermometer (which was made by Mr. *Hauksbee*) must serve for all : In which the Point of extream Heat is marked five Degrees above 0; and so is graduated downwards to 45 Degrees, which is the Point of *Temperate*; and 65 Degrees, which is the Point of *Freezing*. The *Mean* of all the Degrees of every Month, at *Upsale*, the illustrious *Burman* hath noted according to Dr. *Jurin's* Directions, in *Philos. Trans.* N^o 379; which is, by adding the whole Month's Degrees, and dividing by the Number of Days. Which *Means* I have inserted, as well as my own; mine being the *Means* between the highest and lowest Degrees, as well of the *Thermometer* as *Barometer*. And because I forgot to insert the *Barometrical Means* of the illustrious *Lunden* and *Pitheæ* Observers (which are according to Dr. *Jurin's* way) but took only those between the highest and lowest Stations, therefore I have given this little Table of them.

A TABLE of the Mean Barometrical Stations, by
Dr. *Jurin's* way.

JANUARY.		FEBRUARY.		MARCH.	
Upsale	Pitheæ	Upsale	Pitheæ	Upsale	Pitheæ
29.76 $\frac{16}{31}$		29.47 $\frac{11}{14}$		29.51 $\frac{3}{31}$	29.28 $\frac{1}{18}$

APRIL.		MAY.		JUNE.	
Uplale	Pitheia	Uplale	Pitheia	Uplale	Pitheia
29.76 $\frac{2}{3}$	29.49 $\frac{1}{3}$	29.91 $\frac{1}{3}$	29.82 $\frac{2}{3}$	29.59 $\frac{1}{3}$	29.49 $\frac{2}{3}$
JULY.		AUGUST.		SEPTEMBER.	
29.53 $\frac{1}{3}$	29.38 $\frac{1}{3}$	29.54 $\frac{1}{3}$	29.27 $\frac{1}{3}$	29.34 $\frac{2}{3}$	29.14 $\frac{1}{3}$
OCTOBER.		NOVEMBER.		DECEMBER.	
29.43 $\frac{1}{3}$	29.11 $\frac{1}{3}$	29.81 $\frac{1}{3}$	29.49 $\frac{2}{3}$	29.66 $\frac{2}{3}$	29.19 $\frac{2}{3}$

A Thermometrical Table of the Highest, Lowest and Mean Stations at Lunden and Uplale, with the Uplale Means, according to Dr. Jurin's Method.

JANUARY.			FEBRUARY.			MARCH.		
	Lun.	Uplale		Lun.	Uplale		Lun.	Uplale
High.	79	96.		85	83.7		111	82.0
Mean	58 $\frac{1}{2}$	74.8		65 $\frac{1}{2}$	74.3 $\frac{1}{2}$		84 $\frac{1}{2}$	67.5
Low.	38	67.7		56	65		58	52.4
APRIL.			MAY.			JUNE.		
High.	149	60.9		187	47.8		188	46.7
Mean	116	56.56		156	32.54		158 $\frac{1}{2}$	30.55
Low.	83	43.3		125	18.1		129	15.4
JULY.			AUGUST.			SEPTEMBER.		
High.	173	42.4		156	52.2		168	62.7
Mean	146	32.54		134 $\frac{1}{2}$	41.60		133	50.4
Low.	119	23.4		113	32.8		98	38.1
OCTOBER.			NOVEMBER.			DECEMBER.		
High.	122	70.7		90	84.3		83	94.8
Mean	102 $\frac{1}{2}$	61.7		71	73.0		61	80.57
Low.	83	52.7		52	62.3		40	67.7

By this Table, especially by the *Upsale* Observations, it appears, that the colder Months in this Year 1726, were not so excessively cold, as their Northerly Situation would incline one to imagine, *Upsale* itself being 60 Degrees North. But by the Table, some of the Days in *January*, *February* and *March*, &c. at the beginning of the Year; and of *September*, *October*, *November* and *December*, at the latter end of it, may be observed to have had the Thermometer sometimes not so low, or very little below the *Freezing Point*. In *January* and *December*, for Instance, when it was at 67.7, which was lower than in the other Months, it was not 3 Degrees lower than the *Freezing Point*, at 65 Degrees.

But by the best Judgment I could make of the *Berlin* Thermometrical Observations, they seem to have had no less, if not more severe Weather, than in the Northern Parts, particularly than at *Lunden*, *Upsale* and *Pitheä*, where the Weather seems to have been milder than at *Betna* and *Bygdea*; at which two Places, I find they had frequently Showers and Storms of Snow, and more hard Weather than at the other *Swedish* Places, or *Berlin*.

What the Cause of this different Warmth should be, I leave others to judge, whether the Proximity of the Sea, or the Warmth of mineral Vapours, and the Guard of their Woods skreening off the cold Winds (which two latter I remember *Ol. Magnus* ascribes much unto.)

But for the better judging of the State of every Month, be pleased to take this View, which the curious Author of the *Betna* Observations hath given, to-

gether with some Remarks of my own, from the other Places.

In *January* he says, the Winter Cold (which was very intense from the 23d of *December* to the 15th of *January*) began to abate, to the Disadvantage of the Ways and Travelling.

In *February* he says the Winter Weather continued all the Month, to the middle of *March*, with some Snow, and Frost enough to benefit the Ways and Travelling.

March he says began with Snow, and stormy and grievous Cold; but towards the latter end, the Weather was milder, and more seasonable to the Agriculture newly begun. On the 14th, and 17th, was an *Aurora Borealis*.

In this Month, on the 17th and 22d, at *Berlin* also there were Signs of *Auroræ Boreales*, as also on *February* 23d.

Also at *Upsale*, a *Lumen boreale* was on *February* 27th, *March* 3d, 15th, and 16th.

In *April*, *Betna* is said to have had a seasonable Seed-time; and that the autumnal Corn, which had escaped the *Worm* (a Calamity I find common in those Parts as well as *England*) began now to flourish.

At *Lunden* they had *Parbelii* on the 28th and 29th. At *Upminster* we had the *Aurora Borealis*, or *Streaming*, in the Evening, *April* 12th.

In *May*, the reverend and learned Observer at *Betna* takes Notice, that by the continual and pernicious Heat of the Sun in this Month, the Corn was so burnt up, as to be a sad Prefage of an ensuing Scarcity, and Dearth of Provisions.

And

And at *Upsale* also, and *Berlin*, they mention great Drought, and excessive Heat of the Sun. But in some Parts of the Month, the Air at *Berlin* is said to have been coldish.

In *June* the violent Heats were abated, and the Season more moist and rainy. The Corn being too soon ripe, caused their Harvest to fall out at a very unusual Season.

At *Lunden* and *Berlin* it was cold several Days and irksome.

July I find was a rainy Month at *Berlin*, and most of the *Swedish* Places (*Pitheä* the least.) At *Betna*. it was very unwelcome to the Harvest-men. Much Thunder also and Lightening was in most of the Places, chiefly at *Upsale*.

In *August* I find a greater Agreement between the Winds than in the other Months, they, in most of the Places, blowing from some of the Points between the West and South. At *Berlin* and *Upsale* was much Rain, at *Pitheä* Thunder; and at *Betna* the beginning of the Month, being mild and fair, is said to be a good Seed-time; but it is remarked, that for want of Rain the Seed came not up well.

September was a very rainy Month in all the *Swedish* Places, very Cloudy, and some Misty, and Snowy at *Pitheä*; but at *Berlin* better Weather. At *Lunden*, a *Parbelius* on *September* 11th.

In *October* the *Swedish* Places had many *Auroræ Boreales*. At *Lunden*, on *October* 8th, 12th, and 24th. At *Betna* on the 8th, 10th, 12th, 13th, 15th, 22d, 26th. At *Upsale*, on the 3d, 6th, and especially the 8th. And the same Evening of *October* 8th, at *Upminster*, we had a very remarkable
whitish.

whitish List, or Girdle went cross the Heavens, from West by South, to East by North, about half a Degree broad ; which continued but a little while, and then the whole Hemisphere was covered with streaming Vapours, in all Parts emitting Lances that pointed towards the Zenith, where they formed a Canopy ; sometimes reddish, sometimes darker, and sometimes blazing, as if set on Fire, and emitting Lances every way, so as to make an Appearance of the Star which the Knights of the Garter wear. This Canopy moved sometimes some Degrees Eastward, and then would return back again near the Zenith. When the Vapours and Lances shone out most, I observed a strange Commotion and Working in them, as if some large Body was behind them, and disturbed them. This *Aurora Borealis* being different from those that usually appear, I was minded to take this Occasion of mentioning it with others that were seen at the same Time in *Sweden*.

The Weather in this Month was Rain, and hoar Frosts in the *Swedish* Places, with much Snow at *Bygdea* and *Pithea* ; a *Parbelius* at *Lunden*, *October 14th* : And the illustrious *Betna* Observer saith, the Plenty of Rain this Month caused the Corn to thrive much ; and he reckons the 31st Day of this Month to be then the first Winter Day with them, it being Frosty, and abundance of Snow that Day. At *Berlin* it seems to have been a dark and cloudy Month, with irksome Cold towards the latter end.

In *November* *Auroræ Boreales* were at *Lunden* on the 2d, 7th, and 8th ; at *Betna* the 2d. At *Lunden*, and *Upsale*, it was Cloudy, Foggy, Frost and Snow : At *Bygdea*, *Pithea* and *Berlin*, fairer,
with

with Frost and severe Cold. At *Batna* the Cold was very intense; the Heavens very cloudy and misty.

In *December*, at *Lunden Auroræ Boreales* were on the 5th, 6th, 7th, 8th, 9th, 10th, 14th, 15th, 16th, and 22d Days; and at *Upsale* on the 5th and 6th; and at *Berlin*, on the 7th and 12th there were Signals of the *Auroræ Boreales*. Frost, and Snow, Cloudy and Fogs were at *Lunden*; at *Upsale* some Cloudy and Foggy, and a pretty deal of Fair sometimes: At *Berlin* much Frost, Cold, and a great Storm of Wind on the 23d: At *Pitheia* frequent Snow, and some Fair, some Cloudy. *Betna* is noted to have moderately Snow, but twice more intense Cold, to the great Benefit of the Ways and Travelling.

For the better understanding the foregoing Observations, and for a Conclusion of them, it is to be observed, that the *Lunden Barometrical* Observations were made with a *Barometer* graduated according to our *English* Measure, into Inches, and I suppose Decimals of Inches. But the Thermometer (as I said) I understand not.

The *Betna* Barometer also is graduated, according to *English* Measure, into Inches and Centesims.

The *Upsale* Barometer and Thermometer, were both made by Mr. *Haukesbee*, and consequently are according to *English* Measure; the Barometer having Inches and Centesimal Parts; the Thermometer as I have before described.

The *Bygdea* Observations the Reverend Author did not live all the Year to finish, and there being none Barometrical, or Thermometrical, only a verbal Account of the Weather, and now and then of the Winds; therefore I have only, as Occasion served, taken notice of those Remarks. The

The *Pitheia* Observations had none Thermometrical ; and those of the Barometer seem to be in Inches and centesimal Parts.

V. De A M B R A G R Y S E A. *Auctore*
 Casparo Neumanno, M. D. *Chemiæ Pro-*
fess. Berolin. & R. S. S.

P A R S I.

DUO in ReMedicajure meritoque perquam mirari mihi sapè subiit 1.) quod certæ species, quæ ut subjecta pharmaceutica per longumtempus, imo quædam per aliquot secula in usum vocatæ fuerunt, ita ut de aliquibus etiam in sola Europa, non duæ vel decem libræ, sed Centenarii aliquot quotannis consumantur, ratione historiæ naturalis, loci natalis, originis, ubi & quomodo generentur, atque ex quo ortum suum trahant, præcipuè de variis usualibus Vegetabilibus exoticis, e. gr. de Myrrha, quæ ab aliquot Millenariis jam adhiberi consueverit, ut & de sic dicto Gummi Animæ, Carannæ, Sanguine Draconis, Semine Cinæ, ac permultis aliis speciebus, quales etiam variæ in reliquis Regnis occurrunt, ad hunc usque diem non satis certò, genuinè, demonstrative, & indubitato cognitæ sint ; sed de quibusdam nihil nisi disputabilia, dubiosa, variata, sibi invicem contradicentia, plerumque tantum ex auditu oborta, quædam ab aliis ficta, & ex cerebello proprio sibi comparata, indeque ut plurimum apertè falsa, ac de quibusdam planè

